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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,843	10/12/2001	Tsuneo Kimura	0171-0789P	7349

2292 7590 12/19/2002

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

ROBERTSON, JEFFREY

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 12/19/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,843

Applicant(s)

KIMURA, TSUNEO

Examiner

Jeffrey B. Robertson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. (U.S. Patent No. 5,733,995) in view of Yanagisawa et al. (U.S. Patent No. 5,231,207).

For claim 1, in column 1, line 65 through column 2, line 25, Kimura teaches a organopolysiloxane composition. In column 4, lines 62-65, Kimura teaches that the composition is a room temperature curing composition. In column 2, lines 30-62, Kimura teaches an organopolysiloxane (general formula (3)) corresponding to formula (1) of applicant's component (A). In column 2, lines 52-57, Kimura specifies that the degree of polymerization is integer of 10 or more. In column 2, line 64 through column 3, line 36, Kimura discloses a silane compound that corresponds to applicant's compound (B). Here, Kimura teaches that a preferable example is methyltributoximesilane. This silane satisfies applicant's requirement that any non-hydrolyzable groups are selected from a group that includes methyl. For claim 2, the hydrolyzable group is a ketoxime group. Note that in Kimura's formula (1), $n=3$ or 4 , which means that there are at least two hydrolyzable radicals present in the silane. Kimura teaches that the amount of the silane present in the composition is 3-20 parts by

weight based on 100 parts by weight of the corresponding component (A). This range is encompassed by the range taught for this component in claim 1. In column 3, line 38 through column 4, line 5, Kimura teaches the addition of an amino group containing hydrolyzable silane in an amount of 0.1 to 5 parts by weight. This falls completely within the range claimed by applicant in claim 1. In Example 1, column 5, lines 9-20, Kimura teaches (N- β -aminoethyl)- γ -aminopropyltrimethoxysilane for this component.

For claims 5 and 6, Kimura teaches in column 4, lines 36-54, that fillers may be added, including silica.

For claim 7, in column 4, lines 7-34, Kimura teaches the presence of a condensation catalyst.

Kimura fails to teach the specific organosilicon compound (C) set forth by applicant containing an aromatic ring-bearing hydrocarbon radical.

Yanagisawa teaches in column 1, line 56 through column 2, line 2, silane compounds that fall within the definition of the compounds set forth by applicant as compound (C). Yanagisawa specifically sets forth the limitation that the aromatic group R^3 in formula (I) corresponds to applicant's R^4 in formula (3). This group is limited to an aromatic containing group containing 7-10 carbon atoms where at least one of the amino groups is not bonded directly to the aromatic ring. In column 2, line 58 through column 3 line 16, Yanagisawa sets forth several compounds that fulfill the requirements of claims 3 and 4, such as $(\text{MeO})_3\text{Si}-(\text{CH}_2)_3-\text{NH}-\text{CH}_2-\text{Pn}-\text{CH}_2\text{NH}_2$, where Pn is a phenylene group. Here applicant's R^2 is methyl and R^3 is propylene. For claim 4, applicant's R^4 corresponds applicant's structure (5) of the claim.

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Kimura and Yanagisawa are analogous art in that they both teach aminosilane compounds of similar structures as coupling agents.

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the aminosilane compounds of Yanagisawa into the compositions of Kimura. The motivation would have been that in column 4, lines 25-41, Yanagisawa teaches that the aminosilanes of the patent are useful as silane coupling agents. Yanagisawa teaches that these silane compounds are an improvement over the prior art agents because they improve thermal stability and moisture resistance. Yanagisawa specifically mentions that the aminosilane compounds of his invention are an improvement over (N- β -aminoethyl)- γ -aminopropyltrimethoxysilane, the compound preferred by Kimura in the examples of the Kimura patent. Since the Kimura compositions are specifically used for automotive oil seals, one of ordinary skill in the art would have desired an improvement in thermal stability and moisture resistance, and substituted the compounds of Yanagisawa in the compositions of Kimura for this purpose.

Conclusion

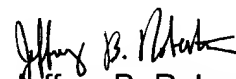
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Owen et al. (U.S. Patent No. 3,627,800), Inoue et al. (U.S. Patent No. 4,721,765), and Matsuhita et al. (U.S. Patent No. 5,717,009) are cited for teaching room temperature curable polysiloxane compositions and amino silanes. JP 61065891 A is being cited for teaching silanes that fall within the definition of applicant's component (C).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (703) 306-5929. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Jeffrey B. Robertson
Examiner
Art Unit 1712

JBR
December 11, 2002